inhalation; nitroglycerin, 1.5 minims of a 1 per cent. solution; sodium nitrite, 1 grain in solution; and erythrol tetranitrate, 1.5 grains in chocolate tablets. The latter three were given by the stomach. All of these drugs, in the doses above given, seemed to cause the same fall of blood pressure in normal individuals. The chief difference in their action lay in the rapidity and the duration of the fall of blood pressure. They found that the action of amyl nitrite began within one minute and was over within seven minutes; that of nitroglycerin began within two minutes, and was over within thirty minutes; that of sodium nitrite began within ten minutes, and was over within one hour; that of erythrol tetranitrate began within fifteen minutes, and was over within two to four hours. In general they found that the higher the initial pressure, the greater was the actual fall. Increase in dosage produced an increase in degree and duration of the action which is, as a rule, fairly proportional to the dose. In studying the effects on abnormally high blood pressures they took patients suffering from arteriosclerosis with pressures varying from 172 to 256 mm. Hg. They gave the following doses, $\frac{1}{30}$ grain of nitroglycerin, 2 grains of sodium nitrite, and 2 grains of erythrol tetranitrate. On comparing the results obtained in normal individuals with the results in arteriosclerotic patients, they found them very similar. Nitroglycerin had the same effect upon arteriosclerotic patients as upon normal individuals. Sodium nitrite and erythrol tetranitrate acted a little less quickly, the maximum effect came a little later, and the duration of action was slightly longer than was the case with normal individuals. Wallace and Ringer obtained a fall of blood pressure in every case. They believe that the fall of pressure is due to a dilatation of the splanchnic vessels, and that a failure is due to the fact that the splanchnic vessels are no longer capable of dilatation. They also discuss the question of the best form in which nitrites should be given, and whether they deteriorate in activity by keeping. Amyl nitrite, as usually supplied in glass pearls, keeps well if not exposed to the light. Nitroglycerin tablets may retain their activity for a year or more. However, the content of nitroglycerin in fresh tablets may vary considerably, and it is best to make use of a solution of nitroglycerin. A 1 per cent. solution keeps fairly well, and is the most reliable as regards uniformity of strength. Solutions of sodium nitrite deteriorate rapidly. A solution should not be used which is over a week old. Matthew states that ordinary tablets of erythrol tetranitrate are usually inert, but that the full activity is retained by coating the tablets with chocolate. Wallace and Ringer have found that even after keeping for one year these tablets retain their full activity.

The Treatment of Pertussis with Eucalyptus.—SOLDIN (*Klin.-Therap. Woch.*, 1909, xxix, 722) says that eucalyptus leaves have been advocated for a long time in the treatment of various respiratory diseases, especially asthma and chronic catarrh. A disinfectant and a sedative action have been ascribed to the ethereal oil contained in the leaves. Danielus and Sommerfeld advocated the vaporization of the leaves in the treatment of tuberculosis. Other authors doubt its efficacy, but it does seem to diminish both the cough and expectoration. Soldin made use of two commercial preparations of eucalyptus leaves, sanosin and sydrosin, in the treatment of pertussis. He treated 26 cases in all, and found it lessened the number and severity of the paroxysms in most of the cases. Three of the patients failed to receive any benefit from the treatment. Soldin found that this treatment was of especial value when there was a marked bronchitis or when there were indications of a complicating bronchopneumonia. He does not believe that this method is specific, but thinks it does diminish the severity and length of the disease. He advocated its use because it may be given with perfect safety.

PEDIATRICS.

UNDER THE CHARGE OF

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The Treatment with Lactic Acid Bacilli of Infantile Diarrhœas Due to Intestinal Fermentation.—C. H. DUNN (*Jour. Amer. Med. Assoc.*, 1909; liii, 5599) believes in an etiological classification of infantile diarrhœas. There are four fundamental etiological factors: (1) Nervous influences; (2) indigestion; (3) bacterial fermentation; and (4) bacterial infection. He states that true bacterial infection is caused by parasites, which live in and on the tissues of the body, whereas bacterial fermentation is caused by saprophytes living in and on the intestinal contents. The treatment of the two conditions is absolutely different, the former cases yielding to serotherapy and vaccine therapy, the latter to other methods. Dunn quotes Tissier, who found that Bacillus perfringens is the cause of fermental diarrhœa, and that the lactic acid bacillus stopped its development. He, therefore, gave such patients pure cultures of this bacillus, noting rapid transformation of their stools, subsidence of their symptoms, and gain in weight. For this same purpose Dunn employed unpasteurized buttermilk, believing that it would contain large numbers of these bacilli. The buttermilk selected was first pasteurized to kill all other organisms, then inoculated with a pure culture of lactic acid bacilli, and ripened until the development of the organism had brought about the proper acidity and precipitation of the casein. Of 28 cases of fermental diarrhœa thus treated, 23 recovered completely, in 3 the treatment was partly successful, while in only 2 did it fail. The cured cases lost their diarrhœa, and gained weight rapidly. All these babies had failed to improve on routine treatment, and also when fed on pasteurized buttermilk; the recovery, therefore, cannot be due to the chemical peculiarities of the food, but to the only new element added, the lactic acid bacilli. In a number of the children, to assure a steady gain in weight, the patient had to be given alternate feedings of modified milk, thus suggesting that while buttermilk can check the fermentation, it is not suited to the caloric needs of the child. In all the cases the buttermilk was stopped as soon as the diarrhœa was checked, and the food employed previously was resumed. In four cases ripened milk could not be digested; they